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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------|------------------|
| 10/760,280  | 01/21/2004  | Akihiro Kimura       | 03500.017840.        | 9839             |
| 5514  | 7590        | 01/09/2008           | EXAMINER             |                  |
| FITZPATRICK CELLA HARPER & SCINTO<br>30 ROCKEFELLER PLAZA<br>NEW YORK, NY 10112 |             |                      | RAABE, CHRISTOPHER M |                  |
| ART UNIT  |             | PAPER NUMBER         |                      |                  |
|   |             | 2879                 |                      |                  |
| MAIL DATE   |             | DELIVERY MODE        |                      |                  |
| 01/09/2008  |             | PAPER                |                      |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/760,280             | KIMURA ET AL.       |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Christopher M. Raabe   | 2879                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 October 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3 and 8 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,3 and 8 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 29, 2007 has been entered.
2. Applicant's arguments filed October 29, 2007 have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1,3,8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (USPN 2001/0039161), in view of Suzuki (USPN 6638128).

With regard to claim 1,

Sato discloses in at least figures one and three, an energization processing apparatus for performing, in a reduced-pressure atmosphere, an energization process on electric conductors (not labeled) which are placed on a substrate (101), comprising: a vessel (102) which has an exhaust hole (not labeled, junction between vessel 102 and evacuation system 106) and which covers the electric conductors (not labeled) and a part (not labeled, that covered by vessel 102) of a surface of the substrate (101) where the electric conductors (not labeled) are placed, to create an airtight atmosphere (via 103) between the substrate (101) and the vessel (102), a first temperature adjusting mechanism (111,112, inner 311,312) for adjusting temperature of an area of the part of the substrate (101) inside the vessel (102); and a second temperature adjusting mechanism (111,112,outer 311,312) for adjusting temperature of an area of the substrate (101) outside the vessel (102).

While Sato does not disclose a configuration of the substrate, vessel, and temperature adjusting mechanisms wherein the temperatures of the first and second mechanisms can be adjusted independently in combination with the claimed vessel-substrate configuration, a configuration wherein the temperature of the second temperature adjusting mechanism is higher than that of the first temperature adjusting mechanism (the second adjusting the temperature outside the vessel, the first inside) would have been obvious to one of ordinary skill in the art at the time of the invention in view of Suzuki (column25, line 50 through column 26, line 10) where heater units and cooling tubes are provided to eliminate temperature differences generated

between the device region (area covered by the vessel in Sato) and a peripheral region (area not covered by the vessel in Sato).

With regard to claim 3,

Sato discloses an energization processing method in at least figures 1 and 3 and paragraphs 64,65 for performing, in a reduced-pressure atmosphere, an energization process on electric conductors (not labeled) which are placed on a substrate (101), comprising the steps of: covering the electric conductors (not labeled) and a part of a surface of the substrate (101) where the electric conductors are placed with a vessel (102) which has an exhaust hole (not labeled, junction between evacuation system 106 and vessel 102), to create an airtight atmosphere (via 103) between the substrate (101) and the vessel (102), reducing a pressure of the airtight atmosphere, and heating an area of the part of the substrate inside the vessel by a first temperature adjusting mechanism (111,112, inner 311,312), and an area of the substrate outside the vessel by a second temperature adjusting mechanism (111,112, outer 311,312).

While Sato does not disclose a configuration of the substrate, vessel, and temperature adjusting mechanisms wherein the temperatures of the first and second mechanisms can be adjusted independently in combination with the claimed vessel-substrate configuration, a configuration wherein the temperature of the second temperature adjusting mechanism is higher than that of the first temperature adjusting mechanism (the second adjusting the temperature outside the vessel, the first inside) would have been obvious to one of ordinary skill in the art at the time of the invention in view of Suzuki (column25, line 50 through column 26, line 10) where heater units and cooling tubes are provided to eliminate temperature differences generated between the device region (area covered by the vessel in Sato) and a peripheral region (area not covered by the vessel in Sato).

With regard to claim 8,

Sato discloses in at least figures 1 and 3 and paragraphs 8,64,65, an electron source manufacturing method by energizing, in a reduced-pressure atmosphere, electric conductors (not labeled) which are placed on a substrate (101) to form electron-emitting regions in the electric conductors (not labeled), comprising steps of: covering the electric conductors (not labeled) and a part of a surface of the substrate (101) where the electric conductors are placed with a vessel (102) which has an exhaust hole (not labeled, junction between vessel 102 and evacuation system 106), to create an airtight atmosphere (via 103) between the substrate (101) and the vessel (102); reducing a pressure of the airtight atmosphere; and heating an area of the part of the substrate inside the vessel by a first temperature adjusting mechanism (111,112, inner 311,312), and an area of the substrate outside the vessel by a second temperature adjusting mechanism (111,112, outer 311,312), and energizing the electric conductors.

While Sato does not disclose a configuration of the substrate, vessel, and temperature adjusting mechanisms wherein the temperatures of the first and second mechanisms can be adjusted independently in combination with the claimed vessel-substrate configuration, a configuration wherein the temperature of the second temperature adjusting mechanism is higher than that of the first temperature adjusting mechanism (the second adjusting the temperature outside the vessel, the first inside) would have been obvious to one of ordinary skill in the art at the time of the invention in view of Suzuki (column25, line 50 through column 26, line 10) where heater units and cooling tubes are provided to eliminate temperature differences generated between the device region (area covered by the vessel in Sato) and a peripheral region (area not covered by the vessel in Sato).

**Response to Arguments**

5. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Raabe whose telephone number is 571-272-8434. The examiner can normally be reached on m-f 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Peter Macchiarolo  
Patent Examiner, Art Unit 2879

